**K-5 Math Lesson Plan**

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| **Teacher:** Herbin, Tennyson, Harris, Williams | | | **Grade:** 5th | | | **Date(s)**: September 2012 |
| **Unit Title:**  Understanding the Decimal Place Value System | | | | **Corresponding Unit Task:** Lesson 2  2012 Summer Olympics— Who Gets the Gold? (Teach prior to task 3) | | |
| **Essential Question(s):**  How can I compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons? | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Comparing Numbers Powerpoint, McDonalds Powerpoint , computer with internet capabilities, decimal cards from task 2 | | **Student:**  Paper, pencil | | | Greater than >  Less than <  Equal to = | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  √ 1. Make sense of problems and persevere in solving them.  √ 2. Reason abstractly and quantitatively.  √ 3. Construct viable arguments and critique the reasoning of others.  √ 4. Model with mathematics.  5. Use appropriate tools strategically.  √ 6. Attend to precision.  7. Look for and make use of structure.  √ 8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:**  **5.NBT.3b**  Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. (Correlates to NCSCOS Math Objective 1.01) | | | | | |
| **I Can Statement(s):**   * I can record results of comparisons of decimals to the thousandths. * I can compare two decimals to the thousandths based on placement of the digits. * I can use the symbol (=) when comparing numbers. * I can use the symbol (<) when comparing numbers. * I can use the symbol (>) when comparing numbers. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Watch Video on Gaggle (use your GCS username and password (first three of last name, last four of social) to access. Video Title: [Alligator Smashes Watermelon !](https://gaggle.net/gaggleVideoProxy.do?op=view&v=1c67b8db1deb2a219c51bf4c31ffc99b) | | | | | |
| **Teacher Directed:**  Use PowerPoint to discuss how to compare decimals using greater than, less than, or equal to in the real world.  [http://www.authorstream.com/Presentation/afabbro-68217-comparing-ordering-decimals-compare-order-entertainment-ppt-powerpoint/](https://webmail.gcsnc.com/owa/redir.aspx?C=7408be64988841abb629a60cbbc1d848&URL=http%3a%2f%2fwww.authorstream.com%2fPresentation%2fafabbro-68217-comparing-ordering-decimals-compare-order-entertainment-ppt-powerpoint%2f)  Stop when necessary to elaborate based on students levels. | | | | | |
| **Guided Practice:**  Stand up, Hand up, Pair Up Activity  Using the decimal cards in task 2 (see end of plan), distribute one decimal card per student.  Play music (optional) and allow students to move throughout the room. After a short amount of time, stop the music and students will high five another student, then pair up to discuss if their number is greater than, less than, or equal to their partners number. Use the Random Name Picker (For example: <http://primaryschoolict.com/random-name-selector/> ) to choose a pair and discuss their answers. Begin music again and repeat activity. | | | | | |
| **Independent Practice:**  Envisions Textbook p. 12-13 (Problems chosen by teacher based on student need.) | | | | | |
| **Closing/Summarizing Strategy:**  “Ticket out the door”--Have students compare and order the following three numbers.  19.08 4 x 100 + 5 x 1 + 7 x 1/100 fifty-seven and thirty-three hundredths | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Using the problem of the day PowerPoint slides found at <http://www.elemedu.ccs.k12.nc.us/Resources/Math-Documents/Problem/Problem_of_the_Day-Main.htm> under fifth grade, quarter 1, use slides 15, 16, and 17 to extend thinking.  Have students prove their thinking.  Then students will chose a decimal number and show it in base ten, number name, and expanded forms. | | | Use Comparing numbers PowerPoint to help students understand comparing whole numbers. Walk students through the slides and discuss how each answer was derived. [http://math.pppst.com/comparing.html](https://webmail.gcsnc.com/owa/redir.aspx?C=7408be64988841abb629a60cbbc1d848&URL=http%3a%2f%2fmath.pppst.com%2fcomparing.html) | | | First, compare the whole numbers to the left of the decimal point.  If they are not the same, the smaller decimal number is the one with the smaller whole number.  For instance, compare 52.432 with 45.989  compare-image  52 is bigger than 45, so the bigger decimal number is 52.432  We write 52.432 > 45.989 or 45.989 < 52.989  On the other hand, if they are the same, compare the whole number to the right of the decimal point.  The smaller decimal number is the one with the smaller whole number on the right of the decimal point.  for instance, compare 60.802 with 60.504  compare-image  The whole numbers to the left of the decimal point are equal, so compare the whole numbers to the right of the decimal point.  504 is smaller than 802, so the smaller decimal number is 60.504.  We write 60.504 < 60.802 or 60.802 > 60.504  Sometimes, they may not have the same number of decimal places to the right of the decimal point. Just add zero(s) in this case!  For instance, compare 10.598 with 10.61  add a 0 after 61 to get 10.610  610 is bigger than 598, so 10.598 < 10.61  Other examples of comparing decimals:  4.7 > 4.4  3.23 < 3.25  7.34 < 7.304  Other times, it may not be obvious which one of the whole numbers to the right of the decimal point is bigger or smaller.  In this case, compare each digit to the right of the decimal point starting with the tenths place  If the digits in the tenths place are equal, compare the digits in the hundredths place, and so forth...  for instance, compare 0.043 with 0.00985  compare-image  compare-image  Compare 1.2045 with 1.2050  The digits in the tenths place, which are 2 and 2 are equal, so we cannot conclude.  The digits in the hundredths place, which are 0 and 0 are equal, so we cannot conclude  The digits in the thousandths place are 4 and 5.  4 < 5, so 1.2045 < 1.2050 |
| **Assessment(s):**  Collect Ticket out the door and check for accuracy. | | | | | | |
| **Teacher Reflection:** (Next steps?)  • What went well?  • Student understanding/misconceptions.  • Specific notes about students’ thinking.  • What do I need to reteach/review tomorrow or in the future?  • New ideas or changes for next time? | | | | | | |

**Decimal Cards**

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| **32.526** | **32.425** | **33.652** |
| **52.015** | **52.150** | **52.051** |
| **15.258** | **15.589** | **15.125** |
| **52.015** | **52.150** | **52.051** |
| **147.851** | **147.185** | **147.581** |

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| **8.007** | **8.700** | **8.070** |
| **.068** | **.680** | **.860** |
| **.008** | **.095** | **.086** |
| **1.524** | **52.150** | **52.051** |
| **2.352** | **23.520** | **235.200** |